

(p) The boom or other parts of the equipment must not contact any obstruction.

(q) The equipment must not be used to drag or pull loads sideways.

(r) On wheel-mounted equipment, no loads must be lifted over the front area, except as permitted by the manufacturer.

(s) The operator must test the brakes each time a load that is 90% or more of the maximum line pull is handled by lifting the load a few inches and applying the brakes. In duty cycle and repetitive lifts where each lift is 90% or more of the maximum line pull, this requirement applies to the first lift but not to successive lifts.

(t) Neither the load nor the boom must be lowered below the point where less than two full wraps of rope remain on their respective drums.

(u) *Traveling with a load.*

(1) Traveling with a load is prohibited if the practice is prohibited by the manufacturer.

(2) Where traveling with a load, the employer must ensure that:

(i) A competent person supervises the operation, determines if it is necessary to reduce rated capacity, and makes determinations regarding load position, boom location, ground support, travel route, overhead obstructions, and speed of movement necessary to ensure safety.

(ii) The determinations of the competent person required in paragraph (u)(2)(i) of this section are implemented.

(iii) For equipment with tires, tire pressure specified by the manufacturer is maintained.

(v) Rotational speed of the equipment must be such that the load does not swing out beyond the radius at which it can be controlled.

(w) A tag or restraint line must be used if necessary to prevent rotation of the load that would be hazardous.

(x) The brakes must be adjusted in accordance with manufacturer procedures to prevent unintended movement.

(y) The operator must obey a stop (or emergency stop) signal, irrespective of who gives it.

(z) *Swinging locomotive cranes.* A locomotive crane must not be swung into a

position where railway cars on an adjacent track could strike it, until it is determined that cars are not being moved on the adjacent track and that proper flag protection has been established.

(aa) *Counterweight/ballast.*

(1) The following applies to equipment other than tower cranes:

(i) Equipment must not be operated without the counterweight or ballast in place as specified by the manufacturer.

(ii) The maximum counterweight or ballast specified by the manufacturer for the equipment must not be exceeded.

(2) Counterweight/ballast requirements for tower cranes are specified in § 1926.1435(b)(8).

§ 1926.1418 Authority to stop operation.

Whenever there is a concern as to safety, the operator must have the authority to stop and refuse to handle loads until a qualified person has determined that safety has been assured.

§ 1926.1419 Signals—general requirements.

(a) A signal person must be provided in each of the following situations:

(1) The point of operation, meaning the load travel or the area near or at load placement, is not in full view of the operator.

(2) When the equipment is traveling, the view in the direction of travel is obstructed.

(3) Due to site specific safety concerns, either the operator or the person handling the load determines that it is necessary.

(b) *Types of signals.* Signals to operators must be by hand, voice, audible, or new signals.

(c) *Hand signals.*

(1) When using hand signals, the Standard Method must be used (*see* appendix A of this subpart). *Exception:* Where use of the Standard Method for hand signals is infeasible, or where an operation or use of an attachment is not covered in the Standard Method, non-standard hand signals may be used in accordance with paragraph (c)(2) of this section.